STATE OF MARYLAND

DHMH

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July 23, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:28
Reporting for the week ending 07/17/10 (MMWR Week #28)

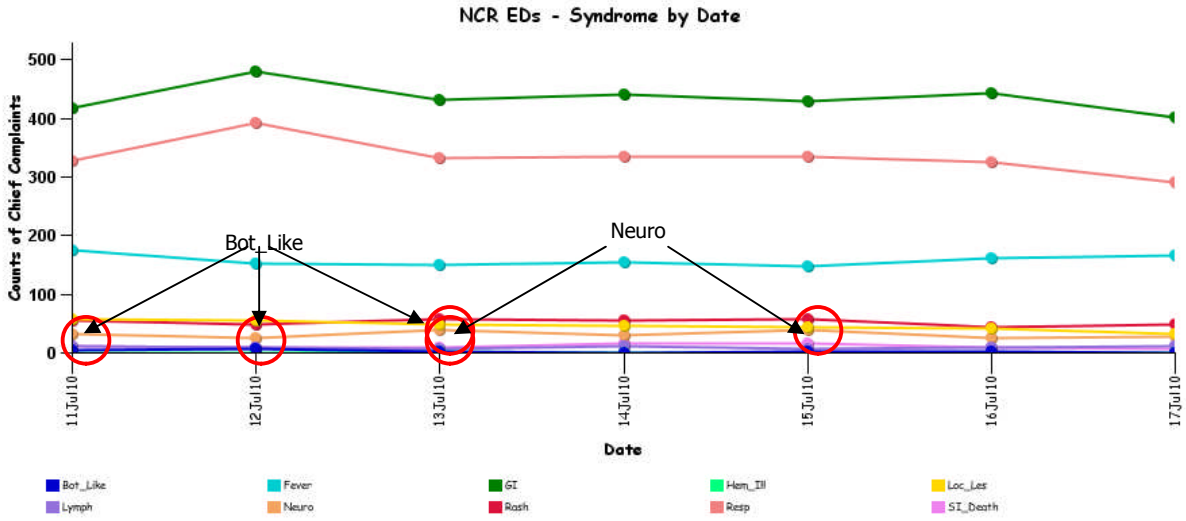
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

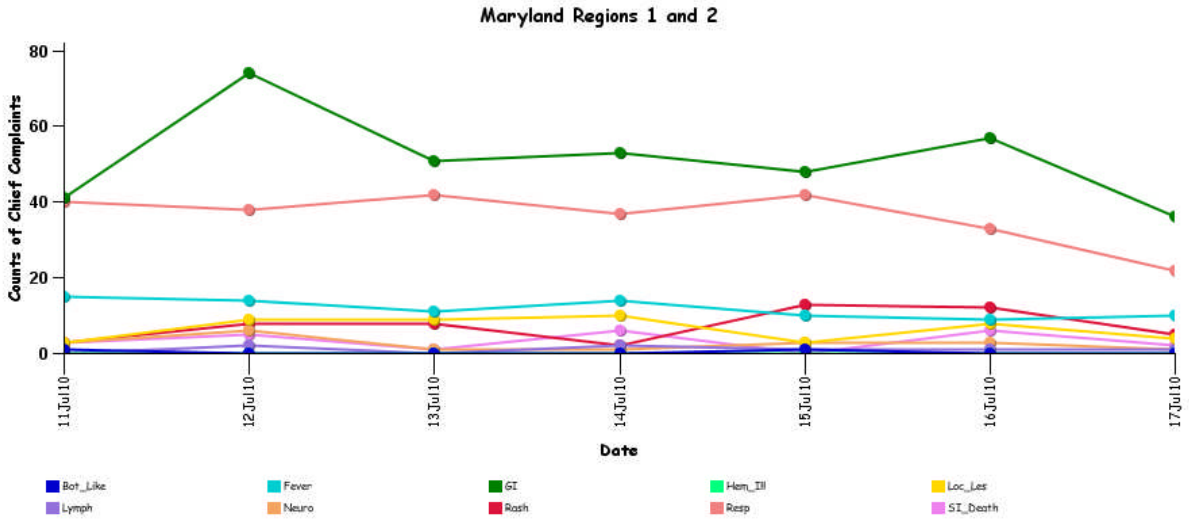
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

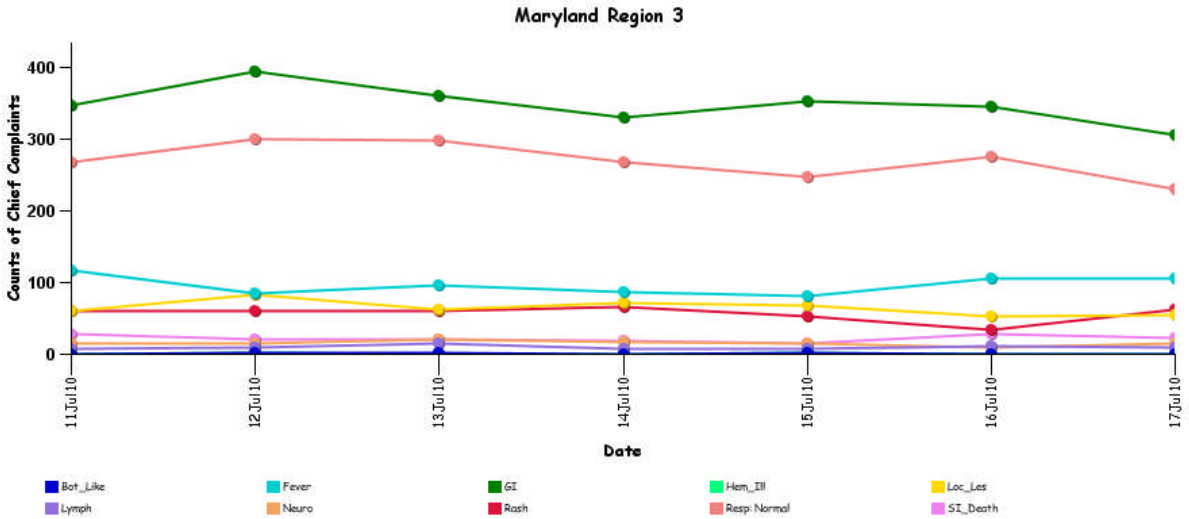


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

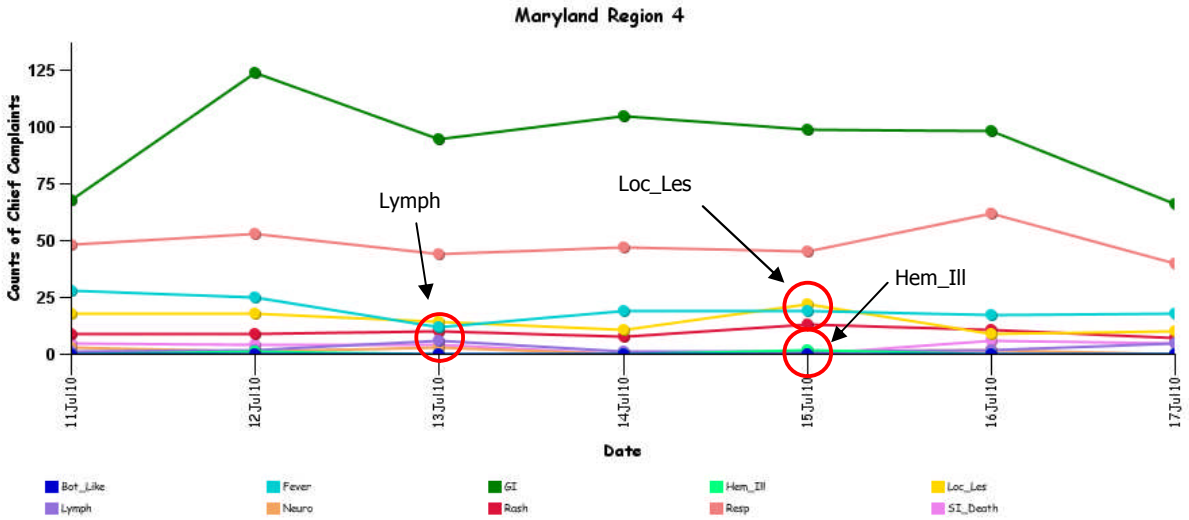
MARYLAND ESSENCE:



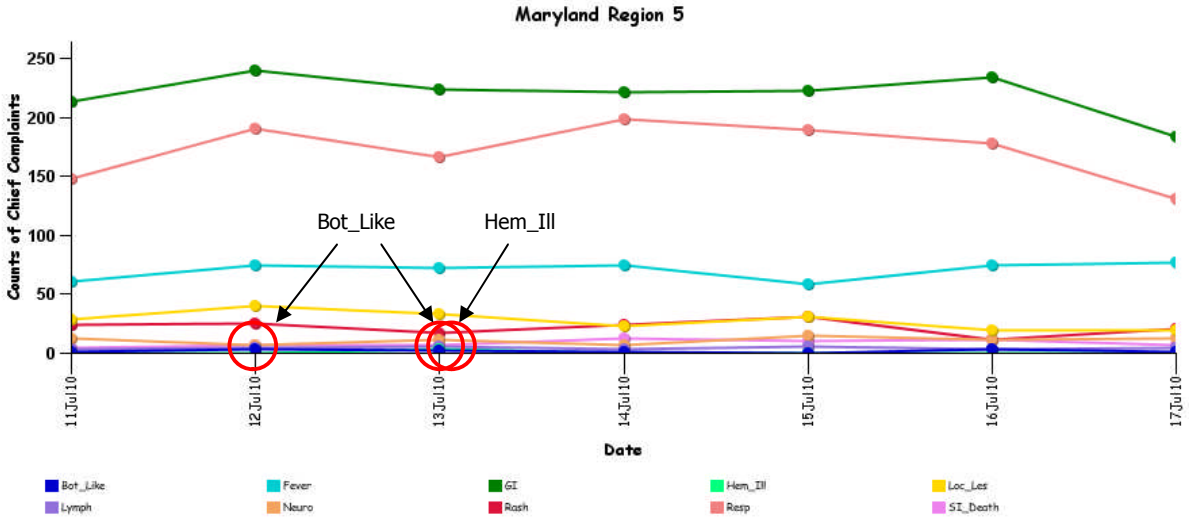
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



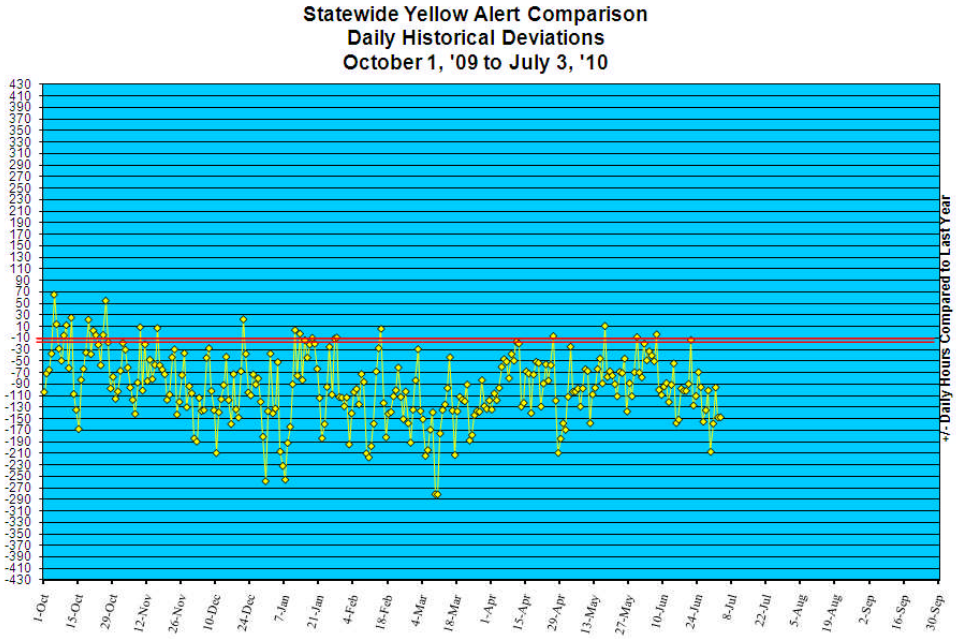
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (July 11 - July 17, 2010):	10	0
Prior week (July 4 – July 10, 2010):	08	0
Week#28, 2009 (July 12 – July 18, 2009):	16	0

3 outbreaks were reported to DHMH during MMWR week 28 (July 11-July 17, 2010)

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS at a Camp

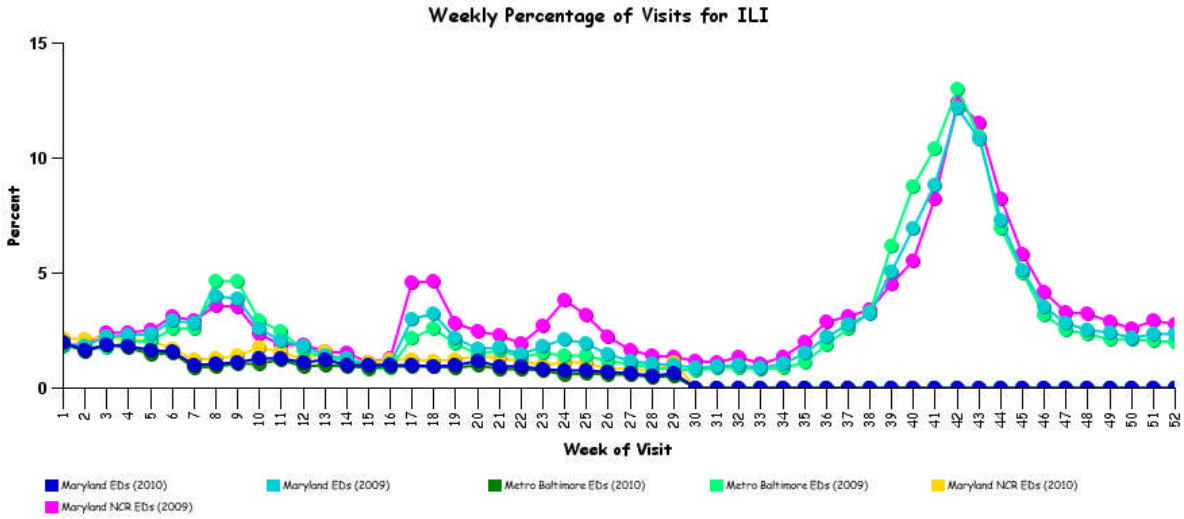
1 Foodborne outbreak
1 outbreak of FISH TOXIN POISONING associated with a Restaurant

1 Rash illness outbreak
1 outbreak of HAND, FOOT, and MOUTH DISEASE in a Daycare Center

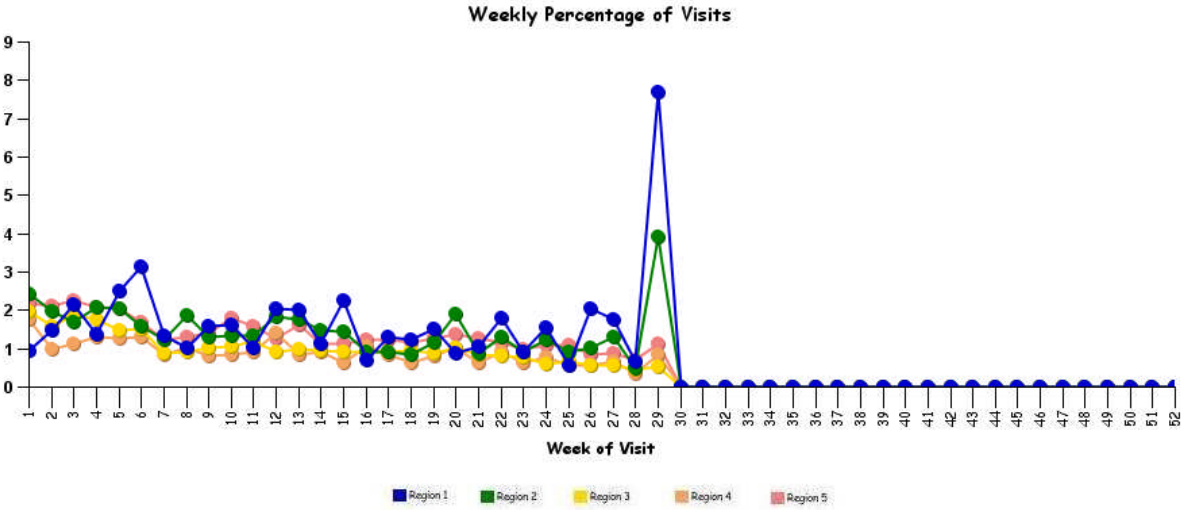
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



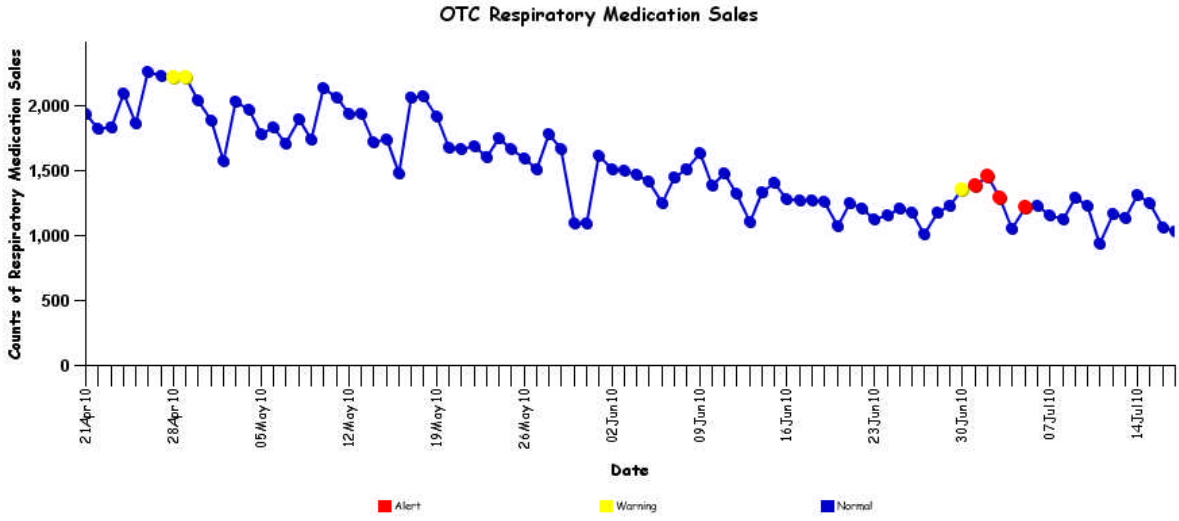
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



AVIAN INFLUENZA-RELATED REPORTS:

WHO update: The current WHO phase of pandemic alert for avian influenza is 3.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of July 5, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 500, of which 296 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1) WORLD HEALTH ORGANISATION UPDATE: 16 July 2010, As of 12 Jul 2010, worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including more than 18 337 deaths. The WHO is actively monitoring the progress of the pandemic through frequent consultations with the WHO Regional Offices and Member States and through monitoring of multiple sources of information.

Worldwide, overall pandemic influenza activity remains low. The most active areas of pandemic influenza virus transmission currently are in parts of South Asia, West Africa, and Central America. In the temperate zone of the southern hemisphere, pandemic and seasonal influenza activity has remained low during the 1st half of the southern hemisphere winter, except in South Africa, where increased detections of primarily seasonal influenza viruses (type B and H3N2) were reported during late June and early July 2010. Seasonal influenza H3N2 viruses continue to circulate at varying levels across parts of the Americas, Africa, and Southeast Asia. Increased seasonal influenza activity continues to be observed in several countries of Central America.

To date, most countries of the temperate zone of the southern hemisphere, with the exception of South Africa, have reported low overall levels of respiratory disease activity and low to sporadic levels of pandemic and seasonal influenza virus circulation during the 1st half of the southern hemisphere winter season. Pandemic influenza viruses have been detected only sporadically or at low levels in most of these countries.

As reported last week, South Africa began observing a sharp increase in the proportion of sentinel respiratory samples testing positive for influenza virus (primarily seasonal influenza B and H3N2) during late June 2010, reaching a peak of ~50 percent detection rate during the 1st week of July 2010, and falling to ~40 percent during the 2nd week of July 2010. In Chile (as of late June 2010) and Argentina (as of early July 2010), the most recent available data show that influenza activity remains sporadic in

Argentina and low in Chile (~5 percent respiratory samples tested positive for influenza, 84 percent of which were pandemic virus with small numbers of seasonal influenza H3N2 and type B detected as well). In both Chile and Argentina, RSV [respiratory syncytial virus] has been the predominant circulating respiratory virus since mid-April 2010.

In Australia, as of the last week of June 2010, overall rates of ILI [Influenza-like illness] remained low and below levels observed during the same period in past 3 winter seasons. Although a small cluster of pandemic influenza cases, including a few hospitalized cases, were recently detected in the Northern Territory of Australia, pandemic and seasonal influenza virus detections remain otherwise sporadic, albeit slightly increased during late June and early July 2010. Similarly, in New Zealand, rates of ILI have remained low and below the seasonal baseline, with only sporadic detections of pandemic and seasonal H3N2 viruses through the 1st week of July 2010. In both Australia and New Zealand, current levels of ILI are similar to those observed during the same period in 2008, when the influenza season was noted to have arrived and peaked late in winter.

In Asia, overall pandemic influenza activity remains low to sporadic, except in parts of southern and western India, Malaysia, and Singapore. As reported last week, in India, transmission of pandemic influenza virus remains active but stable in the southern state of Kerala. The extent of illness in the community is currently being assessed and monitored by the Government of India. Similar numbers of new cases, including small numbers of fatal cases, have been reported on a weekly basis since transmission 1st increased during mid-June 2010. Recent, small increases in pandemic influenza virus circulation have also been observed since mid-June 2010 in other southern and western states of India, particularly in the western state of Maharashtra.

In Singapore, levels of ARI [acute respiratory infection] increased during the 1st 2 weeks of July 2010; however, the intensity of pandemic influenza virus transmission has declined during June and July 2010 after peaking in May 2010. The proportion of patients with ILI testing positive for pandemic influenza virus in Singapore remained stable (14-16 percent) during 1st 2 weeks of July 2010. In addition, substantial co-circulation of seasonal influenza H3N2 viruses (with pandemic H1N1 virus) was detected in Singapore throughout May and June 2010. In Malaysia, numbers of new cases of pandemic influenza continued to decline; overall pandemic influenza activity fell substantially in June and early July 2010 after peaking during mid-April to mid-May 2010.

Low levels of seasonal influenza type B viruses (and to much lesser extent pandemic influenza virus) continue to circulate across northern and southern China as levels of ILI remain stable and near seasonal levels seen in the same period in recent years. Low levels of pandemic and seasonal influenza (H3N2 and type B) viruses also continued to circulate in Hong Kong SAR (China), Chinese Taipei, and parts of Thailand.

In the tropical regions of the Americas, overall pandemic and seasonal influenza activity remained low, except in parts of Central and South America, where there has been recent active co-circulation of pandemic and seasonal influenza H3N2 viruses. The majority of recent active transmission of pandemic influenza virus has been reported in Colombia, Costa Rica, and to a lesser extent in Cuba.

In Colombia, although low level circulation of pandemic influenza viruses has persisted throughout the 1st half of 2010, a 2nd period of active transmission began in mid-May 2010, peaked in June 2010, has now largely subsided during the 2nd of week of July 2010. Similarly, in Costa Rica, low level circulation of pandemic virus has persisted throughout 2010, however, there has been a recent resurgence in active transmission (though less intense than the initial 2009 wave) of pandemic influenza virus during June 2010.

As reported previously, in Panama, a sharp increase in the circulation influenza A viruses (particularly H3N2, but also small numbers of pandemic H1N1) was reported over the month of June 2010; a high intensity of respiratory diseases and a moderate impact on health care services continued to be reported during the 2nd week of July 2010. In Nicaragua, recent active transmission of seasonal influenza H3N2 viruses, which began during late May 2010 and peaked during mid June 2010, appears to have largely subsided during recent weeks. Many countries in the region continue to report ongoing co-circulation of other respiratory viruses, most notably RSV.

In sub-Saharan Africa, the current situation is largely unchanged since the last update. Pandemic and seasonal influenza activity continues to be observed in several countries. Ghana, in West Africa, continued to have a sustained resurgence in circulation of pandemic influenza virus during June 2010, more than several months after the 1st period of pandemic activity peaked (early April 2010). Seasonal influenza type B viruses continue to circulate in parts of central and southern Africa, particularly in Cameroon, where an increase in influenza type B virus circulation was observed during June 2010. Small numbers of seasonal H3N2 viruses continue to be detected across Africa, particularly in eastern and southern Africa; the most recent detections have been reported in Kenya and South Africa.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

CAMPYLOBACTERIOSIS, E. COLI O157, UNPASTEURIZED GOAT MILK: (COLORADO): 11 July 11 2010**,** State health officials said tests show that raw goat milk from a Longmont dairy is responsible for sickening 30 people, including 2 children who are in the hospital. Health officials said Thursday [8 Jul 2010] that samples of unpasteurized milk from the Billy Goat Dairy tested positive for the strains of Campylobacter and E. coli that have made the people sick. On 29 Jun 2010, the Boulder County Department of Public Health ordered the dairy to stop distributing milk to the 43 households that buy a "share" of a goat for USD 40 a month in return for a gallon of raw milk a week. Dairy operator Bill Campbell has been certified to produce raw milk since January 2009. Campbell says he's working to comply with department regulations.

INTERNATIONAL DISEASE REPORTS

ANTHRAX, HUMAN, LIVESTOCK (Cote D'Ivoire):15 July 2010, An outbreak of anthrax has killed 5 people among the population in the region of Bouna (Northeast), said a statement from the Ivorian Ministry of Animal Production and Fish Resources on Wednesday [14 Jul 2010]. According to the statement, "anthrax" was triggered in the herds of livestock. "The human victims have been in contact with sick animals," said Minister of Animal Production Alphonse Douaty, stating that it is a cattle disease transmitted to humans. He has announced that he will be making a tour in the region "in the coming days" to bring the condolences of the government to families of the victims. "Currently located in the region are 100 000 head of cattle which are at risk. We will take appropriate measures to prevent the spread of the disease," promised Mr. Douaty. The minister also appealed to people so that they avoid contact with domestic animals infected with anthrax.

MENINGITIS, MENINGOCOCCAL (MEXICO): 15 July 2010**,** Enrique Chacon Cruz, infectious disease specialist from the Department of Pediatrics at Tijuana General Hospital, said that more than 20 cases of meningococcal meningitis, most of whom are minors, have been reported in the state. The pediatrician explained that meningococcal meningitis is a sudden illness, which can lead to death within 24-48 hours of the 1st symptoms. It affects all ages, with greater risk in infants and persons between 2 and 18. Fever, headache, loss of appetite, malaise, drowsiness, and rash are some of the symptoms of this disease. He urged patients with these symptoms to go immediately to the General Hospital where the staff is trained in the diagnosis and treatment of this disease.

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 13 July 2010, The results of the blood samples sent to the Regional Medical Research Centre, Dibrugarh for testing the disease [Japanese encephalitis virus] got [in] this late evening, the Director of State Health Services, Dr Y Yaima, said to Hueiyen Lanpao. The Director said that he was informed by the authority of the Regional Medical Research Centre, Dibrugarh that out of 27 blood sample sent to the Centre for testing Japanese Encephalitis, 24 of them have been found positive. He, however, said that official documents are yet to [be] received. The official results of the testing are likely to get in the next 1-2 days, Yaima said, adding that officials of the Centre assured him [they would] provide the results at the earliest so that state can take up necessary measures to control the disease. The blood sample collected from patients developing symptoms similar to the disease was sent to Regional Medical Research Centre, Dibrugarh on 6 Jul [2010] last. Once the results [are] received, the particulars of the patients found infecting with the disease could be ascertained for taking up necessary treatments, the director added. [In addition to the] above blood samples sent to the Centre at Diburgarh, his directorate has sent some samples to the National Institute for Communicable Diseases (NICD), New Delhi. The results of the testing will be received by tomorrow [14 Jul 2010], he believed. The number of patients suffering from the disease suspected to be Japanese encephalitis admitted to different hospitals was 66 on 9 July [2010] last but the same [number] was reduced to 61 now, a highly reliable source said. In the meantime, state authority has started taking up measure to control the spreading of the mosquito-borne arboviral disease that can affect the central nervous system and cause severe complications and death by way of fogging and distributing medicated mosquito nets to the people at various places. To discuss further steps, a high level meeting will be convened tomorrow, said the director. On the other hand, Newmai News Network today [13 Jul 2010] reported that since 19 Jun [2010] at least 16 persons have died so far [and] 89 persons are undergoing treatment in the various hospitals in the state due to the mysterious disease which has similar symptoms [compatible] with those of the Japanese encephalitis (JE).

JAPANESE ENCEPHALITIS (TAIWAN): 13 July 2010, The [Taiwan] Centers for Disease Control (CDC) announced yesterday [9 Jul 2010] that 3 more cases of Japanese encephalitis [JE] had been reported in Taiwan, bringing the number to 14 this year [2010]. One of the 3 confirmed cases was acquired overseas, marking the 1st imported case of Japanese encephalitis this year, CDC deputy director-general Chou Jih-haw said. A 52-year-old man living in Miaoli County fell ill 14 Jun [2010] soon after he returned from a business trip to China's Guangdong Province, Chou said. The man first sought medical treatment for a headache at a clinic, but turned to a hospital in Taipei City after his illness became worse, Chou said, adding that the man was released from the hospital on 8 Jul [2010]. Doctors determined the businessman was infected with the mosquito-borne Japanese encephalitis virus during his stay in Guangdong, a known risk area, Chou said. Chou said another patient -- a male in Pingtung County -- remains in an intensive ward after developing symptoms of Japanese encephalitis on 29 Jun [2010]. The 3rd case is a man in Hualien County who visited a clinic on 27 Jun [2010] with a headache and a fever. On 1 Jul [2010], he was rushed to a hospital because of continuous high fever, and he is still being treated at the hospital, Chou said.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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